

**REMARKS**

The Final Office Action issued 26 March 2002 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. Claims 1, 21, 22, and 32 have been amended. Claim 5 was canceled in the Amendment filed 26 December 2002. Claims 36-39 have been withdrawn from consideration as being directed to non-elected embodiments. Claims 1-4 and 6-39, including generic claim 32, are pending in the application and are submitted for reconsideration by the Examiner.

Each of the independent claims 1, 21, 22, and 32 has been amended to particularly point out and distinctly claim the subject matter of applicant's invention. In particular, each of claims 1, 21, 22, and 32 has been amended to recite that the armature includes a valve member that is operable to occlude flow in one direction of the movement of the armature and to permit flow in an opposite direction of the movement of the armature. That is, claims 1, 21, 22, and 32 have been amended, in response to the Examiner's assertion that the armature is not movable in the first and second directions, to positively identify that the armature is movable in either one of the first and second directions upon energization of a coil in order to control fluid flow with a valve member. Thus, the armature, which includes a valve member, must also be movable in both directions along an axis of the sleeve in order to control fluid flow. Support for this amendment to the claims is provided by the originally filed specification at, for example, page 5.

The specification has been objected to under 37 C.F.R. §1.71 for allegedly failing to provide an explanation how the armature can move along the axis in one or more of two opposite directions along the axis when a coil is energized. Claims 1-4, 6, 7, 9, 11-21, 32, 33, and 34 are rejected under 35 U.S.C. 112, first paragraph, for allegedly containing subject matter not enabling to one skilled in the art as to how the armature can move in either directions along the axis when the coil is energized.

Applicant respectfully traverses the objection to the specification and the rejection to the claims because one skilled in the art would be able to make and use the invention as claimed based on the knowledge of such person in the art and from the disclosure of this application.

Applicant respectfully reiterates that "*[w]hich is common and well known is as if it were written out in the patent and delineated in the drawings.*" See, Loom Company v. Higgins, 105 U.S. 580, 586 (1881). Hence, the teachings of the prior art with regard to solenoids, servo-valves,

regulators and fuel injectors as described in the specification (page 1, lines 5-11, and pages 5, 12) are part of this disclosure for enablement purpose under the first paragraph of section 112. For example, U.S. Patent No. 3,203,447 to Bremner *et al* (“Bremner”) shows in Figures 6 and 7, a valve with an electromagnet 20 (i.e., a coil) moving a core 14 (i.e., an armature) in a first direction (Figure 6) and in a second direction (Fig. 7) by energizing a coil with different polarities. Similarly, as described at column 2, lines 44-66, of U.S. Patent No. 4,306,589 to Harned *et al* (“Harned”), a coil 24 can be energized with different polarities to cause a magnetic member 14 (i.e., an armature) to move in two different directions for the valve of Harned. Consequently, the description as to how a coil can move an armature in opposite directions in either of Bremner and Harned is considered to be as if written out in the specification and delineated in the drawings of this application. For the convenience of the Examiner, a copy of Bremner and Harned is enclosed herewith.

Furthermore, as stated in MPEP § 2164.01, the standard for determining enablement of a claimed invention can also rest on whether one skilled in the art would be able to make or use the claimed invention from the disclosure of the application without “undue experimentation.” The feature of the armature being movable in one or more of two opposite directions along the axis is described in the specification and is described by the prior art as if they are part of the disclosure such that, to one skilled in the art, no undue experimentation is required to make and use this claimed feature. In particular, the originally filed application shows and describes an armature that can be used to move a member such as, for example, a valve member in opposite directions, as described at page 5, lines 7-10, and shown in Fig. 10. One skilled in the art, who is charged with the knowledge of the prior art (e.g., Bremner and Harned), can make and use a coil and an armature as described in this application so that the coil can move the armature in opposite directions without undue experimentation. Consequently, applicant respectfully submits that one skilled in the art, in view of the knowledge of the prior art in conjunction with the originally filed application and drawings, would be able to make and use the claimed invention without undue experimentation. Thus, the claimed feature of an armature movable in opposite directions by a coil has been adequately disclosed and enabled such that the Examiner (who has the burden of establishing that the disclosure is not enabling for one skilled in the art) is requested to withdraw the objection to the specification and rejection to the claims. Accordingly, claims 1, 21 and 32 are in condition for allowance.

Claims 2-20 and 22-27, 29-31, and 33-35 which depend ultimately from one of claims 1, 21, 28, and 32 are also allowable at least because claims 1, 21, 28, and 32 are allowable, as well for reciting additional features.

Applicant respectfully requests entry of the amendment because the amendment places the application in condition for allowance. The amendment has been made in an effort to recite that the claimed armature can be moved in either of the first and second directions by a coil in order to control fluid flow, i.e., to operate a valve, as described in the specification. Because the issue of the movement of an armature in opposite directions in a sleeve to operate a valve has already been considered by the Examiner, no new issue or matter is being presented that would necessitate further consideration or search. Accordingly, applicant respectfully requests entry of the amendment and prompt allowance of the pending claims.

**CONCLUSION**

In view of the foregoing amendment and remarks, Applicant respectfully requests the entry of the amendment, reconsideration of this application, and allowance of the pending claims 1-4, 6-39. Applicant respectfully invites the Examiner to contact the undersigned at (202) 739-5203 if there are any outstanding issues that can be resolved via a telephone conference.

**EXCEPT** for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,

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